What is claimed is

1. A micro-shape transcription method comprising preparing a mold having a transcription face on which a concavo-convex pattern is formed, pressing the transcription face against a base material softened by heating, then forcibly separating the mold from the base material to transcribe a reverse pattern of the concavo-convex pattern to the surface of the base material, wherein when assuming a temperature for pressing the mold against the base material as T_1(°C), a temperature for separating the mold from the base material as T_2(°C), thermal expansion coefficients of the mold and the base material as α_a and α_b, and the maximum distance between the transcription center of the transcription face and the concavo-convex pattern as d (mm), the following relations (1) and (2):

$$T_1 \geq T_2 \quad \ldots(1)$$

$$|\alpha_a - \alpha_b| \cdot (T_1 - T_2) \cdot d \leq 4 \times 10^{-2} \quad \ldots(2)$$

are simultaneously satisfied.

2. The micro-shape transcription method according to claim 1, wherein the transcription face of the mold is a plane or stepped plane.

3. The micro-shape transcription method according to claim 1 or 2, wherein the sectional form of the concavo-convex pattern is rectangular.

4. The micro-shape transcription method according to claim 1 or 2, wherein the value $|\alpha_a - \alpha_g|$ is $50\times10^{-7}/°C$ or higher.

5. The micro-shape transcription method according to claim 1 or 2, wherein the concavo-convex pattern has a line width of 100 μm or less.

6. The micro-shape transcription method according to claim 1 or 2, wherein the concavo-convex pattern has a depth of 1 μm or more.

7. The micro-shape transcription method according to claim 1 or 2, wherein the base material uses an optically-transparent thermoplastic resin or glass.

8. The micro-shape transcription method according to claim 7, wherein the thermoplastic resin is selected from the group consisting of polyolefin-, polymethyl-methacrylate-, polycarbonate-, norbornane-, and acrylic-based resins.

9. A micro-shape transcription apparatus comprising a first mold provided with a transcription face having a micro-shape, a second mold facing the first mold, a mechanism for driving either of the first and second molds, a heating source for controlling temperatures of the first and second molds, and

a vacuum chuck for attracting and fixing a base material to the second mold; wherein

a micro-shape is transcribed in accordance with the micro-shape transcription method of claim 1 or 2.

10. An optical-component manufacturing method wherein a pattern for controlling light of an optical component is formed in accordance with the micro-shape transcription method of claim 1 or 2.

11. An optical waveguide manufacturing method wherein a pattern corresponding to a core of an optical component is formed in accordance with the micro-shape transcription method of claim 1 or 2.